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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,311	11/26/2001	William A. White III	SAA-61	9418

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INTELLECTUAL PROPERTY DEPARTMENT
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EXAMINER

BENGZON, GREG C

ART UNIT PAPER NUMBER

2144

DATE MAILED: 03/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/004,311

Applicant(s)

WHITE ET AL.

Examiner

Greg Bengzon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This application has been examined. Claims 1-16 are pending.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

The effective date of the subject matter in the claims of this application is November 26, 2001.

Information Disclosure Statement

The information disclosure statements (IDS) submitted on March 8, 2002 and November 9, 2004 was filed after the mailing date of the application on November 26, 2001. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

Claim 16 objected to because of the following informalities: Claim 16 cites dependence on the Claim 16. Appropriate correction is required.

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The Examiner interprets Claim 16 to read as follows: The communication network of claim 13 wherein the client node is an output module.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 15 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 15 cites the network of Claim 13 wherein the network is CANOpen. The Applicant's disclosure does not sufficiently describe how this feature is implemented in the invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-5, 7-11, 13 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Thomsen et al. (US Patent 5404460), hereinafter referred to as Thomsen.

With respect to Claim 1, Thomsen discloses a method of assigning a network identifier to a client node, the client node having a memory and being operably connected to a server wherein the server assigns the network identifier to the client node, (Figure 1, Column 2 Lines 25-65) the method comprising the steps of: providing a default identifier, the default identifier being assigned to the client node (Column 6 Lines 1-10); determining a location of the client node, the location being identified with respect to the server (Column 6 Lines 1-50); and, assigning the network identifier to the client node in response to the determined location of the client node (Column 6 Lines 1-50).

With respect to Claim 2, Thomsen discloses the method of claim 1 wherein the determining the location of the client node comprises the steps of: receiving a request for the network identifier (Column 5 Lines 55-65); transmitting a toggle signal, the toggle signal having an amount of state transitions; storing the amount of state transitions in the memory (Column 6 Lines 1-50); and, identifying the client node having the default identifier and the amount of state transitions.

With respect to Claim 3, Thomsen discloses the method of claim 2 wherein identifying the client node having the default identifier and the amount of state transitions comprises the steps of: transmitting a request to receive the amount of state

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transitions stored in the memory of the client node(Column 7 Lines 25-30); and, comparing the amount of state transitions stored in the memory of the client node with the toggle signal wherein the network identifier is transmitted to the client node in response to the comparison. (Column 7 Lines 20-45)

With respect to Claim 4, Thomsen discloses a method of assigning a network identifier to each of a plurality of client nodes operably connected to a network, each client node being operably connected to a network server wherein the network server assigns a network identifier to each client node (Figure 1 Column 2 Lines 25-65), the method comprising the steps of: providing a default network identifier, each of the plurality of client nodes being assigned the default network identifier (Column 6 Lines 1-10); requesting a network identifier, the request being made by the client node having the default identifier (Column 5 Lines 55-65); determining the client node having the default identifier and being nearest to the server (Column 6 Lines 1-50); and, assigning the network identifier to the identified client node, wherein additional, unique , network identifiers are subsequently assigned to each remaining client node having a default identifier and being nearest to the server. (Column 6 Lines 1-50).

With respect to Claim 5, Thomsen discloses the method of claim 4 further comprising: inserting an additional client node into the network; and, identifying the

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additional client node for assigning the permanent network identifier. (Column 7 Lines 20-65, Column 8 Lines 1-25)

With respect to Claims 7-9, the Applicant describes an sequence order for events that occur in the method described in Claims 1-5. Claims 7-9 are rejected on the same basis as Claims 1-5.

With respect to Claims 10-11 and Claim 13, the Applicant discloses methods with the same limitations as described in Claims 1-5. Claims 10-11 are rejected on the same basis as Claims 1-5.

With respect to Claim 13, Thomsen discloses a network comprising a server node and one or more operably connected client nodes wherein a permanent identifier is assigned to each client node in response to a location of each client node with respect to the server node, (Figure 1, Column 2 Lines 25-65) the network comprising: the server node having an address input and an address output; each of the one or more operably connected client nodes having an address input and an address output, the address input and the address output being operably connected to a microprocessor in the network client node; a communication bus being operably connected to the server node and each of the one or more client nodes; an address bus being operably connected the server node and each of the one or more client nodes, the address bus being connected between the output address of the server node and the input address of the nearest client node, the output address of the nearest client node being

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connected to the input address of the next nearest client node, wherein each subsequent operably attached client node is similarly connected to the network; and, a network identifier being assigned to each client node, the network identifier of each client node being assigned a unique value in response to the location of each respective client node to the server node. (Column 6 Lines 1-50)

With respect to Claim 16, Thomsen discloses the communication network of claim 13 wherein the client node is an output module. (Abstract, Column 8 Lines 20-25)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 12, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomsen et al. (US Patent 5404460), hereinafter referred to as Thomsen, in view of Krivoshein et al (US Patent 5980078), hereinafter referred to as Krivoshein.

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With respect to Claim 6 and 12, Thomsen substantially discloses the method of claim 5 and 11.

With respect to Claim 14 and 15, Thomsen substantially discloses the communication network of claim 13.

However Thomsen does not disclose the methods of Claims 5 and 11 further comprising: optimizing the assigning of a network identifier, the optimizing comprising the steps of: monitoring a level of network interaction of each client node ; selecting a client node having a lowest level of network interaction; and, assigning the network identifier in response to the selected client node. Thomsen does not disclose wherein at least one of the client nodes is a placeholder node for reserving a network identifier for the position occupied by the placeholder node. With respect to Claim 15, Thomsen does not disclose the communication network of claim 13 wherein the network is CANOpen.

Krivoshein discloses of a digital control system for a fieldbus network that is able to sense new nodes on the network, monitor the various transition states of each node, track the status of each node, and compile statistics on each node. Krivoshein discloses of monitoring a level of network interaction of each client node (Column 6 Lines 60-65, Column 7 Lines 1-65, Column 8 Lines 1-65, Column 22 Lines 10-35); selecting a client node having a lowest level of network interaction; and, assigning the network identifier in response to the selected client node. (Figures 2-7, Column 10 Lines

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45-65, Column 11 Lines 1-10). Krivoshein discloses wherein at least one of the client nodes is a placeholder node for reserving a network identifier for the position occupied by the placeholder node. (Column 8 Lines 50-65). Krivoshein discloses of a serial bus network being implemented using CAN protocols. (Column 2 Lines 50-60)

Thomsen and Krivoshein are analogous art because they are presenting concepts and practices regarding device control systems using a serial bus network architecture. It is respectfully suggested that at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the teachings of Krivoshein regarding monitoring and automatic address assignment for new devices into the method and network described by Thomsen. The suggested motivation for doing so would be, as Krivoshein suggests, to allow for individual field devices to be configured without local independent programming, and also allow for configuration from a remote location. Krivoshein also cites the using such standard control protocols such as the CAN protocol can reduce the time and effort of developing a control system. (Column 2 Lines 50-60, Column 3 Lines 5-20)

Therefore it would have been obvious to combine the teachings of Krivoshein into the network and methods of Thomsen in order to obtain the invention described in Claims 6, 12, 14 and 15.

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Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please refer to the enclosed PTO-892 form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Bengzon whose telephone number is (571) 272-3944. The examiner can normally be reached on Mon. thru Fri. 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on (571)272-3925. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gcb


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